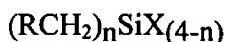


**In the claims:**

Please rewrite claims 1-3, 5, 6, 8-12, 14, 15, 17 and 21 as follows. A marked-up version of claims 1-3, 5, 6, 8-12, 14, 15 and 17 is attached to show the amendments.

1. (Amended) A photo and thermally labile siloxane polymer which undergoes transformation to SiO<sub>2</sub>-rich films by the release of unsaturated hydrocarbons and protonated byproducts obtained from the hydrolysis and condensation polymerization of an organosilane containing an alkyl group substituted in the position β to silicon, the organosilane having the general formula:

SUB  
C17



where n is 1 or 2;

X is a halogen selected from the group consisting of chlorine, bromine, fluorine, and iodine; or an alkoxy selected from the group consisting of methoxy, ethoxy and propoxy substituents; and

R is an alkyl group having at least one but not more than two substituents in the position β to silicon that are electronegative;  
and wherein said siloxane polymer contains silanol groups.

2. (Amended) The siloxane polymer of claim 1 wherein, in the general formula for the organosilane, R is a methyl group or ethyl group having at least one but not more than two substituents in the position β to silicon selected from the group consisting of bromine, fluorine, iodine, hydroxy, methoxy, ethoxy, and acetoxy.

3. (Amended) ) A photo and thermally labile siloxane polymer which undergoes transformation to SiO<sub>2</sub>-rich films by the release of unsaturated hydrocarbons and protonated byproducts, obtained from the hydrolysis and condensation polymerization of an organosilane containing a β-substituted alkyl group, the organosilane having the general formula:

SUB  
C27



where n is 1 or 2;

B1  
X is a halogen selected from the group consisting of chlorine, bromine, fluorine, and iodine; or an alkoxy selected from the group consisting of methoxy, ethoxy and propoxy substituents; and

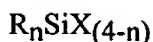
R is an alkyl group having at least one but not more than two  $\beta$ -substituents that are electronegative and at least one but not more than two  $\alpha$ -substituents on the  $\beta$ -substituted alkyl group, the  $\alpha$ -substituent being selected from the group consisting of chlorine, bromine, fluorine, iodine, hydroxy, methoxy, ethoxy, and acetoxy; and wherein said siloxane contains silanol groups

5. (Amended) The siloxane polymer of claim 1 wherein, in the general formula for the organosilane, n is 1;

X is a halogen selected from the group consisting of chlorine and bromine or an alkoxy selected from the group consisting of methoxy and ethoxy substituents; and

B2  
R is a methyl group having at least one but not more than two substituents selected from the group consisting of bromine, fluorine, hydroxy, methoxy, and acetoxy.

6. (Amended) A photo and thermally labile siloxane polymer which undergoes transformation to  $\text{SiO}_2$ -rich films by the release of unsaturated hydrocarbons and protonated byproducts, obtained from the hydrolysis and condensation polymerization of an organosilane containing a  $\beta$ -substituted alkyl group, the organosilane having the general formula: - nm



where n is 1;

X is a halogen selected from the group consisting of chlorine and bromine, or an alkoxy selected from the group consisting of methoxy and ethoxy substituents; and

R is an ethyl group having at least one but not more than two  $\beta$ -substituents selected from the group consisting of bromine, fluorine, methoxy, and acetoxy and at least one but not more than two  $\alpha$ -substituents on the  $\beta$ -substituted ethyl group, the  $\alpha$ -substituent being selected from the group consisting of chlorine, bromine, fluorine, hydroxy, methoxy, and acetoxy;

B2

and wherein said siloxane polymer contains silanol groups

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8. (Amended) The siloxane polymer of claim 1 wherein the siloxane polymer is obtained from the hydrolysis and condensation polymerization of a  $\beta$ -substituted ethyltrichlorosilane, wherein the  $\beta$ -substituent is non-halogenated.

B3  
9. (Amended) The siloxane polymer of claim 1 wherein the siloxane polymer contains at least about five up to about 75 silanol groups per 100 silicon atoms.

10. (Amended) The siloxane polymer of claim 1 wherein the siloxane polymer contains about 20 to about 50 silanol groups per 100 silicon atoms.

11. (Amended) The siloxane polymer of claim 1 wherein the siloxane polymer is obtained from homopolymerization of the organosilane.

12. (Amended) The siloxane polymer of claim 1 wherein the siloxane polymer is obtained from copolymerization of the organosilane with an alkoxysilane.

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B4  
14. (Amended) The siloxane polymer of claim 1 which further comprises a siloxane polymer obtained from copolymerization of the organosilane with a hydride-functional silane selected from the group consisting of trichlorosilane and triethoxysilane.

15. (Amended) The siloxane polymer of claim 1 which further comprises a siloxane polymer obtained from copolymerization of the organosilane with an organotrichlorosilane selected from the group consisting of ethyltrichlorosilane, methyltrichlorosilane and phenyltrichlorosilane.

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B5  
17. (Amended) The siloxane polymer of claim 16 wherein the siloxane polymer is extracted from the aqueous medium with an organic solvent.

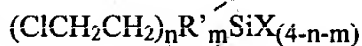
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B6

21. (Amended) The siloxane polymer of claim 1 wherein, in the general formula for the organosilane, R is a methyl group having at least one but not more than two acetoxy substituents.

Please add the following new claims:

22. (New) A photo and thermally labile siloxane polymer [without fillers] of the structure  $[\text{ClCH}_2\text{CH}_2\text{SiO}(\text{OH})]_p[\text{ClCH}_2\text{CH}_2\text{SiO}_{1.5}]_q$ , in which the ratio of p:q is from 1:5 to 1:1, which undergoes transformation to  $\text{SiO}_2$ -rich films by the release of unsaturated hydrocarbons and protonated byproducts, obtained from the hydrolysis and condensation of an organosilane having the general formula:

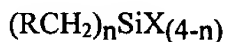


where n is 1 or 2 and m is 0 or 1;

X is a halogen selected from the group consisting of chlorine, bromine, fluorine, and iodine; or an alkoxy selected from the group consisting of methoxy, ethoxy and propoxy substituents; and

R' is any substituted or unsubstituted alkyl group.

23. (New) A photo and thermally labile siloxane polymer which undergoes transformation to  $\text{SiO}_2$ -rich films by the release of unsaturated hydrocarbons and protonated byproducts, obtained from the hydrolysis and condensation polymerization of an organosilane containing an alkyl group substituted in the position  $\beta$  to silicon, the organosilane having the general formula:



where n is 1 or 2;

X is a halogen selected from the group consisting of chlorine, bromine, fluorine, and iodine; or an alkoxy selected from the group consisting of methoxy, ethoxy and propoxy substituents; and